Project Fact Sheet

CEC / SMUD Regen Project 3.1 Laminate & Batten Roofing System

GOALS

- Create a low cost, dual function photovoltaic roofing using UNI-SOLAR large area thin film technology
- Accommodate the widest range of residential and light commercial roofs
- Develop fast, easy installation methods
- Provide Class A fire rating and UL listing on all UNI-SOLAR building-integrated photovoltaic (BIPV) products
- Use high profile demonstration projects to highlight the advantages of the new products
- Develop manuals, videos and training program for designers, installers and users
- Build an automated laminating/finishing facility to satisfy demand

PROJECT DESCRIPTION

UNI-SOLAR will develop an inexpensive, easy and quick to install building integrated photovoltaic roofing system (PV Roof or PVR) which can be applied to any new or existing roof that has a plywood deck, particle board deck or any other type of solid, continuous under-structure. No comparable product exists at this time. The roofing material will be UNI-SOLAR's triple-junction thin-film amorphous product. The laminate and batten PV Roof will be researched and developed using the following process: The necessary hardware will be designed and tested. A new packaging and product-delivery system will be researched and developed. A UL listing will be procured. An initial demonstration phase of five projects will be completed and the projects will be monitored. Other demonstration projects will also be developed but they will not be monitored as part of this project. Installation and operation manuals and videos will be developed, as will a contractor training program. During the third year of the project, UNI-SOLAR will design and build high-volume laminating and assembly equipment and install it in a high-volume manufacturing plant.

BENEFITS TO CALIFORNIA

The PV Roof will provide several innovative benefits that will help to reduce the cost of PV installations. The large area laminates will be the roofing as well as the photovoltaic module, so the cost of roofing traditionally installed underneath conventional PV modules will be avoided. The PV Roof will permit architects to specify this product for a wide range of applications. The development of the shipping spool and eave/ridge roller will make delivery and installation faster and easier than any other roofing method.

Other benefits include increased customer acceptance, lower cost, and fast, easy installation. The PV Roof will blend in with the roofing surrounding it and will add rather than detracts from the overall appearance of the building. The cost of roofing will be avoided because the PV material will become the roofing material. Installing a 128-Watt module will take less than 10 minutes.

FUNDING AMOUNT

Commission	$1,508,425
Match	$1,819,061
Total	$3,327,486

PROJECT STATUS

Project is underway with major successes to date.

FOR MORE INFORMATION

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